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SOME NEGLECTED PARADOXES OF VISUAL SPACE.[1] IV

IN the matter of correspondence between the image on the retina and the form or pattern perceived by the owner of the retina, the biologist's dilemma shows up at only half-length, but already awesomely enough. If, following a Kantian like Driesch, he regards space as a hyperchemism,—that is, as a product of two noumena neither of which is spatial any more (and presumably even less truly) than oxygen is water,—then how does it happen that the very sense organ which specializes in the manufacture of the raw noumenal material out of which the Ego produces space chooses to take on such a structure and materiality that, from the point of view of another observer, it anticipates, at a given point in its mechanism, the very space form which, at a later step in the *a priori* synthesis, becomes an experience? The complete idealist can not say, with Professor James, that we have to do here with a mere coincidence, a misleading accident; for, note well, if the idealist agrees that the eye is the mechanism of space-sensing, he really is condemning himself to say that in reality the eye is itself spaceless—or, what amounts to the same thing, that it is spatial only as a phenomenon, only in so far as somebody is seeing *it*, and not in so far as it is an instrument in producing vision. I fear this does not impress most idealistically inclined biologists as an inevitable result of their position, nor yet as a very serious one. But I think it is both.

To hold at one and the same time that there are organisms living in some kind of an environment and that space is only phenomenal, one must go the full length with Driesch and agree that the real ultimate agents in such a world are themselves spaceless; and it is greatly to Driesch's credit as a consistent thinker that he has not shirked this conclusion. It must be admitted, in all logic, that the organic structures which we seem to perceive as extended and very nicely differentiated with respect to position, size, form, etc., are not actually extended, but simply have a nature that, when conjoining noumenally with a noumenally distinct Ego, produces the appearance of extension. The retina, therefore, possesses a most amazing capacity, putting to shame all the creatures in Alice's Wonderland. For, being spaceless, it not only manages to manufacture, or assist in the manufacture, of space; but, in so doing, it takes on the appearance, not of manufacturing the space which its owner eventually perceives, but of copying that space from some noumenon! Of course, it can not be copying a phenomenon, inasmuch as a phenomenon exists, by definition, only inside of some Ego's consciousness system. So far as I can follow the idealist through this Cretan labyrinth, and see his way as I stumble along, he seems to be proving that the retinal image is neither truly a phenomenon nor yet a noumenon. For once admitting, as I suppose he does, that the retina and its disposition at the moment has some reality above pure illusion, he must say that the image, from its owner's point of view, is neither the object seen (*e. g.*, the phenomenal tree), nor the noumenal entity (the tree in itself) nor yet the spaceless noumenal perceiving Ego. And, from the point of view of an observer with an ophthalmoscope, that same image is neither the phenomenal nor the noumenal tree that appears to the owner of the retina.

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[1] Read in part before the American Philosophical Association at New Haven, December, 1909.

I envy the thinker who can make sense of all this; and yet it states the idealistic position quite fairly, I think. But the gravest difficulty is not yet; it comes with my attempt to understand how a Kantian biologist conceives the correlation and differentiation of optic parts. If he considers the eye as really, and not only in a phenomenal way, the medium of effecting the *a priori* synthesis resulting in visual space, he must concede a most mysterious effort or tendency in the vital force to mould, not only the retina, but the whole optic apparatus, so as produce not only the feeling of space in the individual, but also the mere appearance on the retina. In other words, the crystalline lens, the cornea, and the aqueous humors all cooperate, to all appearances, to produce, *somewhere else in space,* namely, on the retina, a spatial pattern which should be the same phenomenally as another thing *somewhere else in space* appears to the owner of the retina. And all these organic parts do this as a matter of metaphysical fact in a spaceless world; as agents existing somehow prior to the *a priori* synthesis, they are not spatial nor in a space. They cooperate, they adjust themselves to each other and to the external world, they yield to the supposed necessities of optics, not because they are really outside of one another, not because the organism as a whole needs to behave agreeably with its environment and to control and modify spatial things; but they cooperate either for the purpose of producing their own mutual externality and the external environment or else without this purpose but with the same result.

There is, I feel, a certain unclarity in this statement, due to the fact that we are dealing with one and the same sense-organ (and that one the space specialist); one might say that just such odd coincidences should be expected in a structure which, seeing all things only under the guise of space, happens to have the knack of looking back upon itself. There would be paradoxes, of course. And a small concession in favor of dualistic representationism would wipe them all out. For example, a defender of the "local sign" theory might grant, as a biologist, that there is some cosmic peculiarity to which the space we experience corresponds more or less asymmetrically; and yet, at the same time, he would deny both the moderate and the radical beliefs of natural realism, viz., that the perceived spaces somehow copy the objective or that they actually *are* the objective in a peculiar setting. The absurd descriptions of the retina just given must then be stricken out; the eye spreads out in reality, only its outspreading is there not the kind of externality that we sense with the eye itself. Vision is a translation of that objective outspreading into a unique, incomparably different kind, the kind we knew as psychic. And yet this mental projection can steer its owner about in the world passably, if he but learns how to use it. It is an admirable instrument for navigators, but is no more cosmic space than a sextant is the pole star. This compromise is worthy of a Talleyrand: it enables the Kantian to keep his *a priori* syntheses and his Ego; it leaves to the naïve man his real objective world and his live, efficacious contact with it; and it builds a wide platform for several schools of humanism and pragmatism. It is more than a master-stroke of diplomacy, too; many are the philosophical questions which it settles without a hitch. But there is at least one great fact into whose face it can not look, and that is the imitative reflex, which nothing short of radical natural realism of the naïve type can make intelligible.

Smile at a young child, and the child smiles back. Frown, and the child frowns. When the child is somewhat older, you may make it respond with approximately the same tone or noise to the sound you utter in its presence. In a normal child, the accuracy of this response increases rapidly after the seventh or eighth month of life, so that in the tenth month, according to Preyer and later investigators, all kinds of imitation are easily performed. I need not drag you through the enormous latter-day literature on sociology, collective psychology, anthropology, and—above all—linguistics in order to echo the now familiar proofs of the leading part such imitation plays in the upbuilding of social institutions, types of belief, language, art, and so on. The general facts, which tempt some thinkers to view all mental life above the sense level as a mere blossoming of that one same primitive imitative reflex, may here be accepted as quite as clear and as certain as any empirical data can be. Most of us can verify them directly in our own lives *ad libitum*. And many of us, I fear, have often made the painful discovery that our most brilliant and original ideas, punning or philosophizing, are but deferred reflexes, giving back to a later hour other people's thoughts which we have loved long since and lost awhile. Now, it is precisely the biologist—or his blood-brother, the genetic psychologist—who insists most earnestly that a theory of knowledge which is to be worth the fashioning must, if it does not grow out of just such empirical facts as this, at least reckon with all of them, giving each a place in its resulting system. Let us first try to decide what is the very least that must be done with the imitative reflex.

Accidental the correspondence between retinal image and perceived form may be; but the very suggestion that mere chance has brought about the correspondence between a perceived form, motion, or sound and the form, motion, or sound produced reflexly by the percipient as a result of his perceiving the former—that suggestion, I say, simply proposes the total abolition of science and scientists. For we have to do with a mechanism of the most astounding complexity, which appears in multiple forms in a single organism, and which exhibits the correspondence, not inside the process of producing a single sense quality (as in the case of the retinal image), but *between the end terms of a process involving several, often many, different organs.* I shall consider each of these aspects of the situation in a moment; just now let me emphasize the three-fold improbability of mere chance. Chance would not be a wild explanation, if we found only an occasional individual copying a feature of his environment; but millions of men and lower animals do it regularly. Chance would not be absurd, again, if in all these millions there were only a few occasional imitative reflexes recurring with neither observable rhyme nor reason, now in one sort of situation and now again in another; but such acts happen in almost every hour of normal life among anthropoids and men, from the drum concerts of the chimpanzees up to the sentimental young novel reader who weeps with her heroines and gnashes her teeth in baffled rage with the imagined villains of the printed page. And, finally, chance would not outrage us as a hypothesis, if there were but one very simple mechanism, operating with some very limited group of peripheral stimuli, which produces the reflex in some one part of the body; but the entire muscular system of every well-ordered human being is subjugated to a mechanism that on the other side connects with the retina in such a manner that some appropriate limb or set of other muscles reproduces, after its own way, in postures or in movements, the form or the path of seen things and acts. Less comprehensively but with equal or even rarer delicacy, the basilar membrane and the laryngeal muscles are likewise joined up in a copying machine which tends to give back to the outer world a faithful echo of the sounds which that world has given it. At once general, constant, manifold, and inconceivably intricate, can this function be rationally set down as a mere chance producer of imitations of its own stimuli? Not unless its critic were to surrender every accepted scientific method. That interpretation becomes still more hopeless when we consider that reflex imitation, by and large, grows more refined and more general as the organic type improves (*i. e.*, becomes more sensitive and more adaptive). Any theory of knowledge, then, which a biologist who does not desert his own science will accept must look upon the reflex as designed (not necessarily in any finalistic manner, to be sure) to reproduce in organic matter certain geometrical features of physical things which affect the organism through certain media.

But before considering what such a theory of knowledge may be, I find it unavoidable to describe what the reflex does; for, though psychologists by the legion have analyzed, charted, genealogized, and otherwise dissected it, none has, to my knowledge, pointed out just those features and steps which are most relevant to our presnt purpose. Professor Baldwin has dwelt at some length upon the muscular reaction which either reproduces or retains its own stimulating conditions; but the details, no less than their meaning, he has not elaborated at all so as to disentangle a theory of knowledge from them. Lipps, I believe, is the only philosopher who has so much as skirted this particular territory (if this is not true, I should greatly appreciate correction); but his interest has been chiefly an esthetician's, so that the peculiarities which he has briefly noted in his various writings on *Einfühlung* have never been brought to bear upon his or anybody else's theory of knowledge. By all odds the most significant peculiarity, however, has not been even mentioned by him or anybody else; I refer to the fact that *the imitative reflex set up by perception of visual space forms and movements is an imitation which the imitator himself either can not normally perceive at all or which he perceives only indirectly.* Recall our illustration. If you smile at a child, the child smiles back. What has happened? A certain arrangement of light waves, striking the retina, sets up a neural current (or whatever you choose to call the organic disturbance) which, after various wanderings and vicissitudes, pulls the child's facial muscles in such a manner that, to an observer, the arrangement of facial lines appears very much like that of the lines in the object which the child is perceiving. But the child himself does not see his own facial muscles. He does not know that they take on this imitative pattern until he has patronized the family mirrors and duly compared the architecture of his grimaces with that of the things he reacts to. We may marvel, with Lipps, at the inconceivable, baffling complexity of such a reflex; but such wonder is quite beside the point and a weak thing when we weigh the epistemological implications of the happening. Put these in the language of ordinary scientific realism, and they are, I think, decidedly more startling than all the antinomies of Kant (which, it may be well to remark in passing, are antinomies only if their reader accepts in advance the very idealistic epistemology which their existence is supposed to force upon him). What have we, if not a physical complex reproducing itself in another physical complex through the same medium and mechanism which somehow produce experiences of the first complex? What, again, if not that this reproduction, or self-copying, is originally not given in direct empirical form to the medium of reproduction, but can only be discerned by a second party? Consider what problems this situation brings.

In terms of cause and effect—if I may assume the propriety of the category, as every natural realist must—the process just described is a genuine reflection, or perhaps more exactly a deflection, of one material order into another through an intricate series of causal steps in a nervous system; the character so deflected being only the pure geometrical form of the peripheral cause. What, now, are the causal steps to this consummation? A fair answer, it seems to me, puts the whole psychophysical issue on a new level and in a better light. Ignorant as we all are of the private adventures of a nerve current on its course from retina through cortex down to muscle, we must say that somewhere and somehow the geometrical pattern of the retinal stimulus is thrown back and down a motor tract in such a manner that certain muscle fibers stretch and relax so as to group themselves in the pattern of the first stimulus, enormously magnified and, of course, considerably blurred through the appallingly complex "refractive index" of the heterogeneous medium. The biologist and everybody else who seeks to explain organic phenomena first of all naturally, which is to say in terms of the categories under which they appear, ought long ago to have sensed the irrelevance of the stock mind-body puzzle, when viewing the imitative reflex. However pertinent to biology, psychology, or metaphysics the question whether ether vibrations cause sensations or are merely parallel to psychic epiphenomena, it is hardly worth discussion until the facts of organic *conduct* have been broadly surveyed and conscientiously interpreted in terms of the purposes that conduct serves, either actually or in aspiration.[2] And when, beginning at the first basic type of behavior which most sharply distinguishes the more perfectly from the less perfectly adapted and efficient organism, namely, this same imitative reflex, the biologist turns psychophysicist, he ought easily see that the relation of physical stimulus to "mental state" is, for all theory, secondary to the relation between the undeniably physical end-terms of the simple sensory-motor imitation. For we can not, without fleeing the whole evolutionary point of view, doubt (much less deny) that the motor reaction here, as everywhere else, indicates or contains more fully than does the sensation the purpose, suitability, or other significance of the single process of which both are but phases. For it is the final set of the body that constitutes its adjustment to the environment, whereas the sensation is either a mere intermediate step toward that adjustment or else a device for retaining and recalling one or both of the end terms of the process (*i. e.*, for entering the stimulus, so to speak, as a constant determinant or a suitably recurrent determinant of later reactions, and for releasing it in such).

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[2] The pragmatism which identifies itself with this scientific method and with nothing save what that method implies must stand, it seems to me, forever unassailable against all critics.

Admit this, and at once the physical or unique nature of the sensation becomes a matter of immediate indifference. For of one supreme fact the biologist is sure, to wit, that the result, the outcome of the whole intricate process is a physical reproduction of a physical feature of a physical stimulus. Either alternative of the usual psychophysical dilemma, then, is equally agreeable to a biologist seeking a theory of knowledge: if, on the one hand, muscular imitation is caused by the sensation complex, then the latter is precisely what the naïve man believes it to be, namely, a peculiar preservation of a peripheral energy pattern; and if, on the other hand, the sensation is epiphenomenon, the muscular imitation being caused directly by the stimulus and without the contributory influence of consciousness, then the sensation is still a copy of the stimulus, but in a different order of existence; *for the percipient can make another stimulus which brings about the same sensation complex, under the same conditions of observation, and he makes it by the mere act of thinking of the original sensation complex and letting his muscles react imitatively.* In other words, you or I can readily put on the mien, air, or gait of somebody whom we saw last week; that is, by the sole aid of the experience, we can manufacture out of our own bodies a physical form or movement which, affecting your or my retina (say *viâ* a mirror), brings to pass an experience like the original. I, for one, can not imagine how such an experience, be it epiphenomenon or potential energy or what not, can turn its own mysterious force, its moulding power, back into the world of nerve and muscle fibers and in any manner arrange these spatially so that, as a total retinal stimulus, they bring about a copy of the instigating experience, unless this latter *somehow* matches its physical peripheral determinants. This conclusion would not force itself upon me so tyrannically if the stimulus were reproduced directly in the retina itself; for then it might well be that what seemed to be a second stimulus was really but a revival of the first in the retina. But the matter out of which the duplicating stimulus is actually fashioned is not simple ether vibrations; what the memory directly manufactures is a *cause* of such vibrations, a form which will reflect light so arranged as to produce a geometrical pattern on the retina like that which gave rise to the original instigating experience. Here the imitator passes by a most circuitous route from an experience—call it an idea, if you will heighten the difficulty for the Kantians—into the physical order which is moulded *unconsciously.* And the resulting organic form is not a duplicate of the light waves; it is a physiological arrangement, a bundle of variously differentiated bioplasms, which *reflects* light waves so that the latter, stimulating the retina, duplicate the original percept. To repeat, then: either the whole reflex is but a further developing and a specialized reflecting of the physical stimulus, all done in physical terms, in which case the perceived form is only a peculiar reproduction of the stimulus; or else the perceived form is epiphenomenal, but nevertheless is somehow so much like the physical occasion of its existence that it can descend, like some Olympian god, to the crass world of atoms and molecules to shape these, as the potter his clay, into an image of its own material progenitor. The statue of Diana falls from heaven; but no matter how long its descent nor how coarse the marble, its form is the form of the huntress, though she is neither stone nor an Ephesian. Choose betwixt these alternatives as one will, I do not see any escape from what is virtually the "copy theory" of knowledge entertained by the naïve realist.

Before passing to the acute stage of the biologist's dilemma, let me note that the latter is not relieved in the slightest degree by any genetic or voluntaristic account of the origin of the imitative reflex. And here the biologist himself should be the first to detect the futility of that pseudo-pragmatic method which would explain away all difficulties simply by showing whence they come. For suppose he try to interpret the reflex as a by-product, say, of the associative process. He might then be able to show how, by natural selection, or by specific resistances of nerve tracts, or by some other device, the particular muscles come to respond imitatively to the correct visual pattern. But what of it? At some moment, in some of the reacting muscles and nerves, the imitative reflex first develops; and there you are! Be the conditions of its working what they may, the crucial point is that it *works!* The stimulus *is* reflected. And the same occurs, if the biologist talks of an *élan vital,* or an unconscious will, or a psychoid, or any other primordial cosmic drive. Whatever the thing is which strives to copy, and whatever the implements it forges to its end, when all is done, you have on your hands a cosmic mirror. And it is just this mirror and it alone with which any scientific theory of knowledge must be concerned. Theories of being and of becoming may have their turn, but later and in their proper place.

And now, let the biologist face his dilemma squarely. He, like many eminent leaders of other natural sciences, has recently leaned sharply toward Kantianism. The genetic psychologist has encouraged his inclination, and the majority of contemporary philosophers welcomed him as one of the few elect who have stripped the scales of common sense from their eyes. As a rule, he has taken up idealism, if not half-headedly then surely with little zeal for reading its tangible consequences to biological theory. For, had he even glanced at the imitative reflex as a biological fact to be fitted into an idealistically grounded hypothesis of evolution, he would have discovered—I should suppose—at the very first that, having accepted that reflex as a fact and not as an illusion, he must either cast off idealism and hold to biology or else reject all biological explanations now current and cling to Kant as the one and only god of genuinely philosophical science. And the reason for this hard choice is briefly this: all the problems of life which biology is trying to solve either are or involve problems of getting along with space and with time; idealism, denying the objective and independent reality of space and time, though, can not consistently look upon these problems as the incentives or causes of the evolution of mind or generally of conscious organisms in which cellular structure grows to suit the feelings of the creature, *because the very situation which makes the problems is itself a product of mind living in a spaceless world.* A word or two to make this clear.

If evolution is in some sense genuine, there are three possible ways of regarding the problems of space and time which are somehow apparently connected with the direction of organic adaptation: (1) They are just what we take them to be; (2) they are curious by-products of some noumenal situation, presumably a noumenal conflict, but in no wise representing the nature of it; or (3) they are a phenomenal projection, a representation, in a different order of existence, of their inciting noumenal situation. The first view no idealistic biologist can tolerate, of course; while the third, being representative realism, is scarcely more endurable. The second alone is hospitable; it is, I fancy, the opinion which Kant himself would have accepted, not if the question had been put to him point-blank in his scientific days, but probably if he could have returned to cosmology after his Critiques. By it, we may conceive in the crude, misrepresentative imagery of phenomenal experience, that there is a Bergsonian vital force trying to be happy in a stubborn environment where there is neither up nor down, nor right nor left, nor north nor south. It struggles, but does not move; it works out its own salvation, but there is neither bird in the hand nor bird in the bush for it, inasmuch as its ideal is neither here nor elsewhere. But, struggling after its own transcendental fashion, it collides, not at all geometrically of course, with its environment, which, one must understand, is neither outside of its noumenal skin nor inside it; and from the hard encounter flare up all the starry reaches, much as bright sparks flash up when steel meets flint. How read the imitative reflex, then? Remember, first of all, that appearances do not produce appearances, but are all themselves outgrowths of *a priori* syntheses. Causation is not given to us from without, so the Kantian sometimes puts it; which is only a special phrasing of what we have just said. Therefore, in none of the sensations of an imitative reflex can anybody find even a trace of the cause of the procedure. Consider, now, a small boy mocking the solemn countenance of his grandfather. The spatial form the mocker perceives in no wise represents the peculiarities of the real cause of either the perception or the motor discharge which copies that form. But this is not the strangest phase of the puzzle. Most of all must we marvel at the fact that the noumenal factors making the first appearance (*i. e.*, the face the boy sees) work upon *other* noumena so as to force these to produce *another* appearance (*i. e.*, the boy's grimace), but all to no purpose to the noumena themselves, inasmuch as these appearances do not make the noumena's environment more comfortable. The biologist must look at the situation as analogous to one in which a man, while trying to catch a street car, grows very red in the face. The color is produced by his adaptation to a specific environment; but he is not adapting to redness, he is trying to get himself into the most useful space at the most useful time, and the flush in his cheeks is only an unserviceable and not at all pictorial by-product of his striving. Logically, then, though in no other sense, the noumenal parallel in the case of the imitative reflex would be somewhat as follows: it would be as if a noumenal man, running for a noumenal car, and growing noumenally red thereby, were to compel certain of his fellow-citizens also to grow red in their respective faces, whether they wanted to catch a car or not. And, yet, though the flush served none of these parties but was a mere sign of the heat of somebody's efforts reflected in the body politic, nevertheless the colors were enabled to get along with one another and in the world of useless noumenal by-products much more agreeably as a result. Was ever such a preestablished harmony dreamed of by any Leibnitz?

Need we be surprised that consistent idealistic biologists like Driesch have, more by instinctive fore-fear than by reason, said farewell to current biological methods and explanatory categories? Adaptation, natural selection, and all the other concepts of Darwinism and post-Darwinism lose meaning in the face of such a situation.

But now for the strange logic of your idealistic biologist. Complain as Driesch will about the futility of every biological theory which explains organic structures and organic behavior in terms of space, he is still quite willing to accept the threading of chromatin in the nucleus of a cell, its symmetrical division between the centrosomes and the final complete cleavage of the whole structure as evidence that an entelechy is busy, trying to "get somewhere"! And every morsel of fact to which he appeals for proof of vitalism in his study: "Die Lokalisation morphogenetischer Vorgänge," and in his two volumes on "The Science and Philosophy of the Organism" tells us likewise about changes of form, changes of diet, changes of position, changes of direction of motion—in brief, about the moving of extended things by a vital force which manifests itself and its plans in these very displacements. Here, then, we are confronted with a curious spectacle, that of a scientist rejecting the realist's view of space out of respect for a hoary metaphysic, and in the next breath accepting space as the scene in which the entelechy not only finds its problems but works out its own salvation! Far be it from any fair critic to hold the Heidelberg biologist up to ridicule on this score; the only difference between him and all other scientists who turn tender glances toward the "Critique of Pure Reason" is that he has thought out his position to the bitter end and has not scrupled to lay bare its final results in all their weakness. The dilemma of biology is written clearly across Driesch's pages, and no idealistic Belshazzar need summon a Daniel to read its message. It comes to this, and to nothing more: If you want an entelechy or an *élan vital* or *any* law or force that explains the course of organic life, you must accept the products of this life, its structures and its instruments, as somehow expressing its problems, as well as their solutions. If they do not exhibit the difficulties of existence and the goal sought, then no human being has any right to suppose that there are any real issues to be met by any body or any thing. A child's cry for milk discloses not so much as a blind will, if the position of the milk with relation to the child's stomach is not real and vitally important quite apart from the child's space-experience. If space is only a synthetic judgment *a priori,* if consciousness of space is only epiphenomenal, then whoever takes pains to feed the child—or to feed himself, for that matter—is pottering at something a little less fruitful and dignified than a jig-saw puzzle.

Grant, though, that any and every biologist must read off his philosophy of the organism from the observed form and conduct of the organism itself, and grant, secondly, that any interpretation of life is at least a legitimate enterprise; then, as a matter of scientific method, you have dismissed forever all idealists from your councils. For you have agreed with the philosopher's clown, the dull man of common sense, that the vexations stirring all of us to action are the vexations we sense, perceive, reflect over and plan about, namely, situations in space and time; and that the changes we effect in our surroundings and in ourselves are really those which solve our problems. And, having gone this far, how in Heaven's name are you going to hold aloof from some variation of that much despised "copy theory" of knowledge? Even concede to the idealists all the noumena they yearn for,—noumenal egos and things in themselves; grant them too their ideals of God, freedom and immortality: still we can discern or conjecture these forces and aspirations only in so far as they are really at work in the world of space which we perceive; and, in this world, they have purport and are intelligible only to the extent that they are there confronted with real difficulties which are to be overcome only through real readjustments of position, form and movement. In other words, the Christian Scientist alone is entitled to say that the problems of the here and the there, the now and the tomorrow, are not real for the vital force, if such there be, which gives rise to consciousness. Everybody else, even the absolute idealist, must recognize that one must choose between no evolution at all and epistemological realism, at least so far as space is concerned.

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DISCUSSION

IRRATIONALISM AND ABSOLUTE IDEALISM

PROFESSOR MONTAGUE, in his admirable criticism of Professor James's "irrationalism," writes as if that criticism were justifiable only from the point of view of the realist. A few verbal alterations, however, to statements all of which appear on page 149 of the article in the JOURNAL, will render that criticism just as valid for the absolute idealist. The *objective* idealist does not "admit